

SEQUENCE LISTING

<110> RIKEN

TOYOTA MOTOR CORPORATION

<120> A STRESS-RESPONSIVE PROMOTER

<130> xxxxx

<150> JP 2001-309984

<151> 2001-10-05

<150> JP 2000-356652

<151> 2000-11-22

<160> 20

<170> PatentIn Ver. 2.0

<210> 1

<211> 2072

<212> DNA

<213> Arabidopsis thaliana

<400> 1

tgggcttttg atccacatga cgatcatata gtcttttctt tcaacacaaa acacttgaag 60
tgtatcttat caactaaact ctattccagc aaaattatit caaaattaga tatatgggag 120
aatttttaca ggccattcta gattttcatt aacgctgiga tttatccgtt aataagtacg 180
attaagagta aaacgacgtc gtttgcaatt gaaacaaaaa tccccaattc agaaataaga 240

aaccctagat cctcaaactct cttcttcttt tcttcttcga attcactcct gtattttgaa 300
atcaaagtga attgcaaggc acaaagttca tgcttttaaag cactgcaaatt ggcaagtca 360
tgatttatat ggcatTTTTc ctgtttttgt ttcaattgca aacgacgtcg ttttgctctt 420
aaacggcttc attaacggat aaatcacatc ttctaattgc tctgtttatt cagttgatgt 480
tgtgactaat ttggctctgt caacgaaagt tagtgatttt atctgaagtc aacacgtaat 540
tgatgatttt aatcacaaag tacaaagttt atgttttaaag caccacaaat tgcgaagtcg 600
tgatttaaatt gacatttttc ccgttctggt taaactaagt ttctattatt taatatggat 660
attgtggagc gtagtgtcag cactcagcag cttatttaac gtgatactct ttaaccgagt 720
aacaactagt gaggtcataat tcaggaccga tccaacaata ttgagggttt tactccaagt 780
aaaatttttag ttttatTTTT aattatcata aacgacataa atataatatg gaaagatcac 840
aaatactgat taaaaactaa aatcatcaaa acgaaaaaga aaaaagaaaa aattgggttc 900
aactctcatg agttattaaa cattttaggt tttaggctta aatctttaaa aaaaatcaga 960
actgaaaaac gaaaaattct aattttattt tggactctga ttcatagctt atgtcgctta 1020
tgtagttaat ctagggatga atctgtattt cgttaccgta atgagagttc gatactctct 1080
tacttgttac gattctggag catgttacat tttttctttt ccgtcaacaa caactttaat 1140
atggtaaaac aaaatttatt tttatttggc tggctctact caagacaaat cttctgccga 1200
catcacataa tcatattaaa aaccataact tctgccactc tgTTTTTTTT tTTTTTgta 1260
accattaact gattggattt tgatccatct catctgattt tttagctcaa caatttactt 1320
gcacattttc tatttggttt tatttatact tagttacata tatgattatc gaactagtat 1380
ctctttataa ttaagtattt ttctattttt ttttaattta gatttttggg aattcattta 1440
cagtagaaaa ctgtaaaacc atatggctca attatagaat gaaaacttca acgaatccat 1500
acaacttatt ggctaaatat aataaatctg cttgaagcat attgttatta tttagttgga 1560
tttgacgac tctgacttta atgtataccg acatacccta tgatttagat gttgattttt 1620
cccattctta atatatccat gtttaagagat tccaccataa catatctaatt tatttgcatt 1680
giaataaata ttatcattaa aaaaaaatac aactggacag ctggctcgtc ccattgtttc 1740
ttacgtccac caattacatt tgttaaagca aacttattag aacgttcatg tgtgagaagt 1800
tgggtgcgac atgtgtctaa ggtctatgtc agaaatcgga ttagcttatt aagtaaacta 1860
tactatatca ttgttaatat agataaaata tctagttcgt ccaaattaaa ctattttcat 1920
aactgccacg tggcgtaaac gtatccatcg agtcacttgt aatatcttta taaccaaagt 1980

cttccaacac attcatcacc atctatctac tctttactct cttctcttct cacatcaatt 2040
attcatagtt ctctcttctc cggcaagaaa ag 2072

<210> 2

<211> 2000

<212> DNA

<213> *Arabidopsis thaliana*

<400> 2

ctcctgtttc atgatcatat ataaaaggaa agagattgat tcagctaadc aaattcataa 60
acatggataa gatatacaca actctaaacc tagctcaaac tatgaacaat agaggataac 120
cacttgaaac ctaattttta tcagaagatt ttagtacttg tgctgcittat tcaaaattcc 180
tttgcccaaa aaaaaaaagt ttgacttacc ttttgaaaga cgaacgtatc cactatggaa 240
caatctttcg taatctcact ttctagtttg gtatttataa aacccaaaat ttgattgtca 300
aattaaatac aataagagat tcctaaaccc agaattcaat tgcgaaatca aacagagacg 360
atacagagag agcgagagag cgagagagag agagtgattt acgtgagaac gaatcggata 420
aacggaaatt tccagaagcc ggatgagttt cccgctattg tgatgagtaa caaaacaaat 480
tcgggagttg tctatttaat acttatcaat agcccatgaa cgcagagacg tatggacgcg 540
agaatcgtaa gtacgtgaca cgtgtaaacc agtgacgtca ccgctctcgt cacaaaccgg 600
ctagtattgt cctcttctat tttatctcac acaatcatgt taggttatca tagtaccact 660
aaacatttat gtgagaatgg atggatatta gacaaccgac gacaaataaa acaaacaaaa 720
gtagatagac gaccataaat taaactataa acgaagattg agggaaaaaa tcattggttt 780
agattttcga acaaatatcg tgaaaagttt ttcatcttgt agtttttgta attaatgggtg 840
tatgaaaaat cattggtttg tttagtigaa ttaaatttca gtaaacgggt tagagtatga 900
accactcaa taaagatttg actgccaagc gttactgggt tctgggtgat tgaatagtta 960
agagtataag gtttgggcca ttatgtggtt ttatttaaag ttgaaggtct catttattaa 1020
ttccttagag ctgatggcta atgtacaacg aatttgattc aggagtaaga taaacggtac 1080
acccaaacac gcgacgcgag cgaagaagac gatgacgaac aaggagaaag ctcgagagag 1140
aagggagaaa agaatgcagg agatctctct ccttcgaact attccttact ctgaccacca 1200

0998739.112001

taggtatgaa gagacctaat ttgtccaatt gtttcggctt ctttgtatcc taagatctat 1260
 catcatttac tctgcgagat tctcaatttc acagcattcg atgtgttaat ctctaatttc 1320
 acttgcttaa atccatttct tagtgctgct tacagtgttt gatgagtffc tatttttctc 1380
 tatttgggag ttggagactg aattggtaatt gttgttggta cttacagatt tgtgtttcac 1440
 taaacacaaa gaatttagag aaattgaaaa tgaatgaagta tgtgtctctc aagccctctt 1500
 tttgaatttg acttgctcatt aggcgtcaaa tgatttttta ggtgggtggc ttgtgaaaat 1560
 gtagcagtag tgactgggtc aaaccgcggg attggattcg agattgcaag acagcttgcg 1620
 gttcacggat tgacggttgt tcttacagct agaaacgtga atgctggctt tgaagcagtt 1680
 aaatctttga ggcaccaaga agaaggcttc aaggtttatt ttcattcaact tgatgtcaca 1740
 gactcttcgt cgattagaga gtttgggtgc tggcttaagc aaacatttgg aggttttagat 1800
 attctcgtaa gatccttatt gattcgtaat cttggaggat agttctaattg ttttcttaga 1860
 tttgaattac atgcatttgt gttgctatgt ttttcaggtg aataatgcag gtgttaacta 1920
 caatctcggc tcagataata cggttgaatt tgctgaaaca gttatatcta ctaactacca 1980
 aggaacacaa aacatgacaa 2000

<210> 3

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 3

catataccaa ccgcctaaca ttacagcctg tccccatccc ctatctttat ttttcttttt 60
 ggctcattta gcttcaactt tttttaatag gtgtgattag aacatactaa aaaaaacata 120
 tgttttaact tatattatat gaataaagtg ttgtttttta tagttttatat ttctattaca 180
 agtacaatat ataggatatt ttggtaaca attttaaatt taaaagatat tgtgagtaca 240
 aatcattaag cttacacaaa atgttcattg cttcttaatt cttacaatcg gaaaatttgg 300
 acaaaaaatc tagactaatc tccaaaacat tgtgaaaaat tgggggtttt ttttatcatt 360
 taaattgtct atagtggcca atcattatta aaaaaattg tttttgttg aaattttaaa 420
 ttataaaaaa aaaacacgtt tatacataaa atgcaaaaac ttttcttaaa ccaaattaca 480

gagaaaggct atcaccatcc ttgtcttgat gccaccaca ctgtaatcc caaaatacat 540
 acttaaaacta tactatacta acatgaattg gttatacgat tatctatcta gtttagctaca 600
 taattcatat aattagtttt ttaaaatata cttatgtaat gatagtaact aaaaaatata 660
 ctatctcgag aaatccaacc aaaatgctat gatagtatat aaaataaaat gaaagaaaga 720
 ggaaccaagt tgtgaaacca ttaccaga agaagaagaa aaaaacaaga tggctgagtc 780
 tctgtatagt atgaagctgg ggccgaaacc acgaatcaaa gaaccatttg acgatgcaag 840
 tggctatcga taaccaatca atagaaactc caccgcctca aaatatcata gtgctattta 900
 atttttcata ctatcattta ttgtaggcta taacatattt ttgtattgta gatggacggc 960
 tagtacacgc aagttagica ataaactttt aacaaatggc atcttgacat gcttaaacac 1020
 attttataat tcgaacctca ctttgcctac ttacacacg tctacttata gtagatgagc 1080
 atcaatcatt gaaccgttcg tataatacaa tttttttttt gtaatacgtt ataattagaa 1140
 agtaatggaa aataagtga aacacaaatt ttcaacggtt ttactaagat ttaattttac 1200
 aattttcaaa atataaccga attattttaaa tctgattaaa ttataatta attttctaaa 1260
 aaaaaacaca gattaaaaaa atatatataa actaatcata aatatattaa tttttgtaat 1320
 ttatatTTTT ttataacttt aaactaataa tattcaatta ttatcttaa agtttacaaa 1380
 ttatcaataa taactaataa ataatgcata aaacttttt aaaaattaac tttttgaaac 1440
 aaattttttt ctaaaaaatt aaataataaa gaacagaaaa aatattattc aactaaaaat 1500
 attggataat aactctgaaa gtttgcattt ttcaaataaa tcattgattt tttttgtttg 1560
 acataaaaca ttaatttccc ctgtgaaatc acacatttaa aatctaacta tatttaaaaca 1620
 aaaaaaaaaa gtccaatttt gactttaatt atataaaaaa agcaaagcta attatgggtc 1680
 aaaagactca aaggccagaa ttgacgcagc cgtttatgag aagtgagaag acaatttcgg 1740
 agtcacttcc tttatttccct ctcttccctc actctctcct atataaacct tcctctcctc 1800
 ttctctcttt ctcatctctt caaacatttt tcgaaagcct tgagagagag aacacagacg 1860
 ataccaactt tcttcaatct cgttgccgca gtataattat ctcatctcct ggatataatct 1920
 ctcttctctg gcggcgaca agaagctaca agaataaaaa gtctgttttc tctcttttca 1980
 agaaaccact tacttcgaaa 2000

<210> 4

<211> 2000

<212> DNA

<213> *Arabidopsis thaliana*

<400> 4

agcaagtagg ttacgtggaa ggaagataatc aacgcacaaa aagagaaaca ctcaacgtta 60
agggaccaac cacaatatctt ggatttttgc tgaatgcagtg tgtgaaaaca ggtccacacg 120
ctttgtactt ttttcatcat cggctctacaa taaagctcaa gtctttccat ggacagagat 180
aagcaagaaa aagtattaac attgttcacc tcaaaataat ttaggaaaat gacaatgaga 240
tttttacctc aaaagccaaa atcaacatct acccattctt tcactcgtca caatcatgag 300
tttcttacia tgcttacctt agagttaga gacatatctt cacaaaaaaa gcttgtgtct 360
atttcaaatt ctgaccgta gatgtcacia catgcatata tcattgaaaa cagagcaaca 420
caggaaacca agcataatga tctagatata cttagcaaga cataactata gtctttgaat 480
caacataggg attaatgata gagaatgagg aagctcaaga tttatactc agtttcttac 540
aaaacaaatt tctctctaac tgcaaaaaca ccaattagga tttgaagagc gtacctgttt 600
gagtcfaatgt ccaatgtcgt cccccgcct tctacatttc ttagcctgct gaataaaagc 660
acaagccaaa atgagaaggt gccaaaggcg ataaggatca atttctacca ttcaaaaaac 720
taatggtagag aattagaaac gagagaaaac tacttgttga ggaaatagcc aaaagcgcaa 780
tcttcgtcac ctgaataaag accaaaccgt cactttcaat gagtcagcaa gaaaaagaga 840
gagagagaga gagagattct ctataacatt tgagtcgaca tggattctaa tgcatcaaaa 900
gtcatctcca ataaacaaac acttgaaact cacatggcta atagaacaag atcaaaagcct 960
taagtattaa gcattacaga cactactggc taacttttga cacatgttct taagtaacat 1020
agtatcaata tccgtgaatc acatcgaaca cacacaacaa gggcttaatg catcaaagtc 1080
ctgttatttc catataacaa catatttcat ttacaaacag aatgcagcat tcaggcagtc 1140
caaatggaaa gggtgacaaa aaaatataat ctigtactc tacatatatg gcagaatgta 1200
ataaccaggc aagaaaaaaaa cagaataaac agatcaatga gtatgatata aaaaaaagtc 1260
acaaagaatg tgccacagtg aacaagaggg ccatgagaag aaattttcaa agaaaatatt 1320
agcattgtta gaattttttg ggtcaatgga tctgtcagct gcttagttgg aaaacacaaa 1380
tcttacagga aggaaagtc aagaaaaaga aaataagcaa agttaatagc caccacaaga 1440
aatttcatac agaaataatt aaatcgttgc acttatcttc ttattcaaac taaaatcaag 1500

agaacttaat aattttcagc cacacgaacc atgtgttcaa agccaaaggt gagaagccaa 1560
aattatcagc ttatctccat taacaaggga aaagcaagac tagatttaag agttctctgt 1620
aactaaaaac tgcaggagtg agtaagtaaa taattcacca acaggaaaac aaaactcaat 1680
tatctatagc tgaatacaca tgtaaatgag aatttattaa ctaaaacatc ttcctttgta 1740
actgatgtga catttacaat ttttcatttt gaggtgtaag aaccgtgtga caagtgaaaa 1800
ggttaaaaata agcaaccttt gtgatatatt ctcctccactt ttgaaatig ggtctccaaa 1860
ccacagccaa tcaatatctt ttataaatat aaacacacaa acagcatctt tctctcaaac 1920
acaaacatat cttctatcaa acaccaacag ctctattctc tacctcattt ctcataataa 1980
caaagagaga gaaaaaaact 2000

<210> 5

<211> 2000

<212> DNA

<213> *Arabidopsis thaliana*

<400> 5

tttctggatc acgttcacat gccgataatt attgttaagt tgtttgcata ttttattatg 60
tgccttgttt gtgggatttt cgctaatttc ttttctcggt ttttcgttct cctcttcctt 120
caattatfff ctcaacttcc tattcgacca aagcattaat tctacacacg acagtaaagg 180
accactcaa acaataatta gttttcaact ctttcagaat atattttagt gacactaaaa 240
tagcataatc taaacacac agaggccaac gactctgaat gatccgtacc gcagtggaag 300
taacagtcgg gttatgtcgg taggctatat aagccactac tticatttca atttctcaac 360
tttgttgtac ttagttcgta tcctatcagt ttatcatcac ttttaattgt taccatatag 420
tatctgtaaa aactaattaa tatttaigaa tcatgctcat attttcaaat cttagagcta 480
ctcaacagaa cacacacaca tacagtcaaa attttatact acataatttt tgttttaagt 540
ttacagttat aaaccaaaac aatcacctca caaaagtata tagttatacc aaaccaagca 600
cctcataaat gaaaacaaaa ttaaaaataa taatatatat aataagaaat attcatcaat 660
actaacgttc aatttttagta aattggcaaa aataaaatat tagtatcact tccagagatt 720
acattattat ttgggtgaatt tggcaaaaat aaaatatattc gttgggtggat gctttgctgg 780

gacgactttg tttattaccg tcatattgta gtaacctaat tttattacct aacattcatt 840
 tgaacattaa aaacattaat gtcatttgat tggaagagtt tattaatgac cattatttcc 900
 ttatttccaa acctaataaa cccattatft ccttataitta aattatggct tgattgggtgc 960
 aatttctttc tagctctttc tgtttccgtc ttgattcgaa taaaaacgac aaatgtttatc 1020
 tctaccgta tccgattatg tttaatatat tatgcattga tatttcacgc tacgatctgg 1080
 accgacgttt agtgtggacc ctgtcacgag ttttatctat gacggacca aagaaaaact 1140
 aattaaagca gaatatcaaa gttagtcggg taagtccaa ctaataaccg agccctgttt 1200
 ggctttgagc attagtagta atcaaagtaa acatatgata gaaaagtta tataatctat 1260
 tatatacaga ttaatatgta cgattccaga ttctatttat gtttctcgta tgtaaaacat 1320
 ataatgtgaa cctacttaaa ctatactaag actattagtt tggtttcaaa ttagattaat 1380
 tagtttaacc aaactgaaca tatccctaga ttgtaaaagt ctaatatatc cactaattat 1440
 ttttgcttgc cgacctctaa tccacaactt tttgttttcc catttccact gattttcaac 1500
 attccaccgg gtgttaccaa cagtaacata catacagtga atttttcaa cactccaccg 1560
 catgttacca atagtagcaa aacctctgac aaaaatttgt accgactata aatattcaac 1620
 tccaactctt tctctctcac acactcaa atctctccaa cactaaaata attgtaccga 1680
 ctctctctct ctctctctcc gtaacaaaaa aatcaccaat ggcaaaacaa tatctctttg 1740
 tactctctc aatctctat ctcttattcac tggagctcac ggcggccacc gcagcctcac 1800
 agaccggagc ttccaaaaaa gccataaact tcatccaatc ttcttgcaaa accaccacat 1860
 accctgcctt atgtgtccac tcaactctccg tctacgcaaa cgacatccaa acaagcccta 1920
 aacgttttagc tgagaccgct atagccgtga cactaagccg agcccaatcc acgaagctct 1980
 tctctctgcg tctaacacgt 2000

<210> 6

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 6

attatatcta taataacatg attctatttc aatcgagtat gtaaaaaaag taaaaatttg 60

atcgattaat catgtagtaa tctcgtgttt tttccaaca aataattgat taaaagttaa 120
 aaacatatca taaatcaaaa ccgaatgagt aatccggatt gagtctagaa ttacaagtta 180
 agttatctgt catacgggtgg taatctcata tttttttag aatccittaag agttgagaac 240
 tttcaagaac agttaagtitt aataatattt taatctttgt ataagagatt tcttcattct 300
 tctaaaacca caacaccttg tgaatgacaa ttcatacgtt catatttgag atttaatttg 360
 ttttccctat ataagaaatc aataatctta ttgtatatga ctaatttatt atataaaaac 420
 ccttactagg ggttatataa gacacgtaga aatgtctcca acatacagta ctataccaca 480
 aaattcagaa atttgaacaa ccaaagcaat cagaaaacaa tattcatttt tgttttattg 540
 gaaaagattg agccaatatt tcttaaataa ctccttttta gataatcttg gaaccgggct 600
 tgttcgagcg ggtcgtgccg gccgggctgc tagggctgtt ggtagccgga ctcatcccg 660
 gagtgttctt cacagcatcg gctgctcctt gtgccatgtt cttcacttgt ccaccgtct 720
 acactccaaa atcataatta atgcatataa ttgtctataa ttaataataa tgaacaaaat 780
 ttttgagaag aatcgtaaac ctgttgatg acactagagg cttagaaaat tagggaagga 840
 ttgtctgat catgctctga gtgtaactgt gactgtgagt ggggtgtgat atcagcattc 900
 tggttcattg cgtgtgatac attgttcaag tactcttctt tcttcagcta taaataaaca 960
 tatatttgat ggttcattca tcacaaaaat cagatttcca aaattgtcaa atttcagatc 1020
 atataagcaa aacaaatgtc gctattttgt gtgttgtatg tacctgaact tgaccgggtg 1080
 ctctccggc gctgtggctc aactgtggc tcgacgacat ctcttgggtt gttctgtgaa 1140
 atgtcttaat taattaagat tgtaagcttg tagaatactt gaagggatit gatatgcatt 1200
 ataatggtat ttatataatt agaaagtgtt tatttttagta aaatccctaaa tctaagcatt 1260
 acactaacac gtggaaaata acataccatt gacgattgac atggctaatt ttttgtggag 1320
 gtgaatagtt tgaggattta ttaccctaac gttgcttggt caagaagtga agtaggatga 1380
 caggcaatag gaagatctta aacctttttt tccgggtgaca attatttatg actttttatt 1440
 gttgtcaaaa aatatattat cagtaatata tcaataacga atacaataaa aactcatccg 1500
 atcgattttc aagaatttat agctatatta aaattacttc gaatccatgt aagaattgtg 1560
 tattggttct ttttagaaaa aagtaaatat ctatgcagta atggcggttg cataatatat 1620
 gccitgagta gatgaatata caatatcaag ataacgtgag tcaccacgtg tctaacatct 1680
 tccgtagctc cgtttttacc atgacgtgtc acatagatat aggtcatcat gaaaacgaga 1740
 aacctaactt taacactcgc acataactcc aagtttcgaa acttcgtcac atcaacctaa 1800

tcggggcagc tacctacaca cctgtcgcga aactgcaaca cctatcttgt tctctcgccg 1860
 accaagactt gctataaata actctgacta acgagtcgga gacaactcac agttccaaac 1920
 acacaaaaaa cacaagatct aaaaaaaaaa gcttttatca tttagaaaaa tttggtttcg 1980
 aatttcttcg aagagtgaag 2000

<210> 7

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 7

tgaacaaatt taatgcagaa tttagtggag gatcagttgt gattttcctt cggtaaaatc 60
 attttcagtt attgacattt gaattgttca atttcaaatt tcaaataatta taattcaatt 120
 caaagactag ctaagttttt aaaagtaatt agtgagagat ctacacagtga tataaaccac 180
 attcatttta attcatagca aagtaaatgg taagaaatga aaatggaaga aagagaggag 240
 agtagttcac acgaacatct gaaggagaag ttgagagagc ttgaggagga atggacagcc 300
 atgaaaacag gtaaaaactc atctgcggtt tcatggatta ccgtggaaga tgctcttgag 360
 tatgtcgaaa actctcccag aaacctaatg ctctctctcc aacacaaacc aaaggcagag 420
 atgatacaag aaatatcgcc attaaggaga aaactcttcc acgactctga tgatgatgat 480
 caaactaaga agacgacatt gctttctcat tcatcttgtt ggtcttcgaa tgtgacgagt 540
 tcgagtgata ccacgaaagc aaagaagaag acaacgatta gaagatttgt ttctgttaca 600
 atgggtgctgc ttttgtcatg ggtttttagtt gtgttgatga accactttga tcatctctcc 660
 atgaatacac aaatcattac tttggttcct acttgatatt tttatttatt ttggtttgag 720
 aatgttcate aatctcaata aataaaaaaa gtttagtttt gtattattac ctctcgccctt 780
 ctcttttaat tcattgaacc tcttcaactt tggctgtaac tatgttgggtt aaaacagtat 840
 aagtaatgia tgtatttatg gttttaggaa aatcttacia aataatactc tatcattgga 900
 tgaagaagca aaaactacac cctctacat cttttctatt cataaacttt tttggggaaa 960
 gaactacatt ggtggtgatt aggtgcatcg gtgacactaa tgttgaaaat atgttttgtg 1020
 taaaattagt atggttaaag ctaatcattt agttgagcaa aaaaagatgc taatcattta 1080

aatagaaaat ggactcaaac aaaagaaggc cacacattca attgttacat ctttattggg 1140
 ttttcatttt tggaagctat ttttatgaat ttgcagtgtt ttgttgccca aaagaaaaaa 1200
 agcataattc caagtataac tttcattttg aatccatcag tcataatgttt tacttgaatc 1260
 aactatttgt tgggttttac gaagttactt gttagaaga ttcaaaatat atataattag 1320
 actatcaaag gaacaaaaga atgtaattgg gtcataactt tttccgaagc ttacgtgact 1380
 tgggagaaaa tcaaaccat tagtttcacc cttaatcaaa ctaatcaca attttgaact 1440
 ttgcaaagaa ggtaaaataa taatcagcaa aaagattaat aaaatgacaa aagtatctct 1500
 ttaaaagatt aataaagaaa taaagaaatg acataagctc tcaccgaccg acgtcttgct 1560
 ttttttattc ttaaggctcg tgccatgtcg acgccttcaa gcttagaatc tcgccacgtg 1620
 tgggataaac taaccgaacc caatcgaacc agacagacca aagacagacc agaccggact 1680
 agttgtatgt cggcatcagc gttctagtag gacgttaatt aaaaaataa aaataaaata 1740
 ttatttatga tattccacca ataagagcca atgaaaagtg tgtgaaccaa ccaacttctg 1800
 tagcaaaccg taccatttct ctcttagata cctttacctt ccttctataa attaggttct 1860
 tcctttcaca tttctttgtc ttcttcttct acataaaatt gattcgctc gaaatttaca 1920
 cagacttgct gctctctctt tctctcttat ttcacagagc ccttaaacat ttccaaaaat 1980
 cttgcaaagg aagaaaaaca 2000

<210> 8

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 8

aaatatcatc atttatatca aatttatgat atataaaata tcattatcat tttaaaataa 60
 cactaaaata atcagtgcga ttccgtataa tcttcataatg aaactgcaag aatccttggc 120
 gttccaaaga ttatgatgat tattgtgagc ttgatttat ggtttccatc ttgtcaaaaa 180
 atggctttta taaatggtag agctttctta gttttcctta agatatacac aacaggttac 240
 aaatataatt tatttttgct aaaagaaata gttatagtaa acttgtaaaa actactacaa 300
 ctattttatg gaaaatgtct taaagctgtt tcaactttta tacacattac tgcatttact 360

attctgaaat caatttttaa ttaaggctct tgtactataa ggaatccttt aaataaatat 420
 aaatatiaac aataaaaaaa tccaaaattt cagaatgcaa tggctttaca attacaataa 480
 taatgtatit gattgtacta aaaatatacc ttaaatactc accaattatc ttttataata 540
 taatccacaa atttctggaa gaggaaaaac aagtaaatgc aagtcacatt tcacatttca 600
 aattaccaac taccaactac aaactacttc cgcgtctcaa attgaaccac taattaatca 660
 ctactttata tgcctcatcat tctttttctt tcattacaat tctagaataa tgacttaacc 720
 aaaattcata caaataaaac aatattttgg cticcttcac caggctaaga attttggtat 780
 tgaaaatcta agtacttcat aagaaactgt tggaatcatt taaaatttgt gatcatatat 840
 aaaaaaattt attcatcttt atatttaaga gtttaaaaaac tgcaactttt gtttttcttt 900
 cactaagtct tatggccaca gtttaattaaa agcagatgaa aggtgggtcca atggaaaagg 960
 agaatgtgat tgggctagtt gggagagttc tgatgtctag tgttgggtac acgtgtccgt 1020
 cagttacaca tagcattaaa tcagacggca tgtcattatt caaatctagt tcacatagta 1080
 cgactaatag ctgataaatt aatgattata cagcatatga attatgaatt caaaaaaaaa 1140
 aaaaaattga aaatgttaag gagatgctat attttacaaa attcatcgca atgcttttcta 1200
 ctaatttgct aagtggcttt ctccagttag tcttgtcgat tccaagcgat attattaaat 1260
 ctigaagcat cgctcaaagc attatagctt aagataacca aattgittatt aaaaacacct 1320
 agtgaaattt ttaaattaaa acaattttga tatctttgta atatctaata ctactctttc 1380
 tgtgtctaaa aggattaatt ttcaaaaatt tcacacatat taaaaaaaaa aaaaaattac 1440
 tagctaaaca attttcaata atcataaaac aatagtaact taataatttt tttttatttt 1500
 caaaatagtc cticaagttt acaattcatt ttagtattat aatcaacaaa atttgtatta 1560
 aaaagttgga aaattaatct ttgtggaaca aaaaaatcta gaaatcattt tttagaatta 1620
 gagagaggtt tgataaaaaa aaataaaaaa aaatagagag aggtagtaca tactaaacga 1680
 tgtgatacta ctattgacaa aatcttaatt cttagtttag tagaataaac tagaaggaat 1740
 gaatgaagta aatgcgaatc caactactaa caaacctac ttagtcatca tattttccca 1800
 tatgaaatcc ctatataaac ccatcatcat ctccacttt ttcatatcc aacaacaaaa 1860
 acataagcta agaaaacgaa actcaactaa ttttgttatt acccaaaaag aagttcaaac 1920
 acaatggctt tgcctttgag gtctttcaca tgccttggtt taacgggtgt catagttgca 1980
 tcagtcgatg ctgcaatctc 2000

<210> 9

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 9

tcaatttgag acgcggaagt agttttagt tggtagttgg taatttgaaa tgtgaaatgt 60
gacttgcatt tacttgtttt tcctcttcca gaaatttgtg gattatatta taaaagataa 120
ttggtagta ttttaaggtat atttttagta caatcaaata cattattatt gtaattgtaa 180
gaccattgca ttctgaaatt ttggattttt ttattgttaa tatttatatt tatttaaagg 240
attccttata gtacaaggac ctttaattaaa aattgatttc agaatagtaa atgcagtaat 300
gtgtataaaa gttgaaacag ctttaagaca ttttccataa aatagttgta gtagttttta 360
caagtttact ataactatit ctttttagcaa aaataaatta tatttgtaac ctgttgtgta 420
tatcttaagg aaaactaaga aagctctacc atttataaaa gccatttttt gacaagatgg 480
aaaccataaa tcaaagctca caataatcat cataatcttt ggaacaccaa ggattcttgc 540
agtttcatat gaagattata cggaattgca ctgattatit tagtgttatt ttaaaatgat 600
aatgatatit tatatatcat aaatttgata taaatgatga tattttacag aatgaaatgt 660
tgttatacat actatacctt aagagcatat aacatgatat aattgctaca ttagtgtcgg 720
tagaggtttg tgtagtcaaa ttgtgactat taagtactac acatgtgaga catttatcaa 780
tcttgtacga tgttgcttga cggtttttgg ctgatagtat ccaacaccat acatcaacct 840
ttcacgtccc aagctctcta agacatcgga gaagcatcat cacatgcgta cgtagaaagg 900
aaacacaaaa gttaaagaca ttttgtaata tgtgtaacta tgagacatat atgagactgc 960
atgtgactat gagttatata tggcttatag agcgatagtg ttatggagat tatattgcat 1020
tcatgctatg tactgcataa gacgaattcg gtttcgtgta tttattcccg cttgagicta 1080
gaattggitt caagtatagt tagaaaaaga ctgttttttt cgtcctatta tggttcgtat 1140
acaaaattat gcattgaatt gatgtggcat tcacgtaaaa atcttcctgc agggctataa 1200
aacgtatitit tggcgtacga ttataataaa ttttgttatt attcagatta tttattaaat 1260
cttttttggt gtgacaaac gcatttatgt taatgattat acgaaatatc gagaaaaact 1320
ccatatagca cctctatcat tcaattatgt agtaagtcat aaaatgtgaa ctttgctaatt 1380

tataatggcc ataattagta aacgtgatgg gagaattgtg atgttttagtg ttggatacac 1440
 gtgtctatca gctgcacatc gcatttaatt ggacggtatt acatatatag tacacataat 1500
 agctgacatt tcatctacaa cgaagataca aattttttaa cgattttctc ttgtctacta 1560
 cagtataaca tcgctctaaa catgctaatt aaaaaaaca gtttaattaa ctgcagataa 1620
 atgaatata attttttaac agtatagctg tatatatatt gacgtattgg tctttgtaca 1680
 ttctgaaaac tgatactatt gtttacataa ttacatatga ctggagaaac taattatfff 1740
 ggtttagtag agaaacataa ctacatatga ctggagaaac taattatfff cgtttagtag 1800
 agaaactaga aagaatgcat gaagtaaatg caaaaccaac tactaacaaa ccctacttag 1860
 tcatcatfff tccccatac gaaatcccta tataaaccca tcatcatctc ccacttttct 1920
 cacatccaac aacaaaacac aagcgtagaa aacaaaactc aactaattgt gttatcacc 1980
 aaaagagaag agcaaacaca 2000

<210> 10

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 10

ttttcattga ttacatttac aaatfffftg ttcatgttat tagtaaaata gatgtttatg 60
 aacaaaattg agctaacata tgacctctca taatatattg ttgatatcag ttttaatatc 120
 aatacattaa taataccggg aaaaaaaatc attcccaagt ttgttaaaga agatgttcat 180
 ataatttaag tttaaaaggg tataaccaac aaaatgatta caaatgcgtc gatgggataa 240
 ataatagata tgagagaacc atacaaatat gatagtgaac aaaataaaat ctagtataat 300
 tatgggtcaa aaaaacataa aaagagggga aaagaaaaga taaagggaat atcaaaaggg 360
 atgaggcaaa atagagagtt tcaataaaga taaatttggg tgatggtgac ggaataattc 420
 ttcatgttt tcgttttgac catcttttcc tttatttctc actttaattt tccittatff 480
 ctctcgctgt ttattcccat aaatffffta aaattaacta gaacaaagca caaaaatggg 540
 caatcttcga aatatactaa aatfffftat tataattaac aaaataaaaa agagaggga 600

actgctaata tctggagtc attctcttgg agaagagtaa agtgggcaaa caaaaaaaaa 660
 ggaactgagc tgattcgatt ctctttggga ctcccatcca tgcattcacct ctttcatagt 720
 ttcatTTTTac ttttatgttt attatTTTTac aagattaagt aattagcttt ttttaactgca 780
 agcataacaa ataacaaaac ctttattacg gtctcaaacg ctcaaaaatg tttttaaaca 840
 tagtaaaagg tttcgttcaa tacaatttga aaaaggaaaa aacaaaaaca attttcttac 900
 aaatagatgg ccaccaacga ttaattatta ccgtcaaact tataattggg atgactcggg 960
 ggttttgcga tggcgtttgt tccaaaagag tgccatattg ttcatttggt cttatataatg 1020
 ttttaatcca taacacgttt tggatcaatg ttttcaagta atcaaagtga aagtagagaa 1080
 tataatcaatt ggtgaaaatt ttgaaatata aatgtaattc tttttaagt gatccattga 1140
 tcaaggaggc cactaaaatt tgctcgaggc ttggtagtgg gttcatttgt gtttgataaa 1200
 tacactTTTT agtactcacc cctTTTTTT gtctgacacc gtatatgtat attggttaca 1260
 tctaaatttg tcacacttgt gtagcagtga tagttgtctc agtgtgtcta tagactatag 1320
 ttaaagtta attagtagta ttatataaat actaattaca tcatctaaat atttgcata 1380
 gattcacaca aggcaaattt ccttggctaa ttgtcacact atttatgtga aggtgagtag 1440
 ttaaagctaa taacctcgaa gttgcttggg ttatatgaga tcaagtttgg ctcttgtaag 1500
 tgaagataat aatttaaaga gtatTTTaat cgtgataatc taaatgttag ttgatagta 1560
 atacgtcacg gaacatgtac cgaccgacgg ccgatttcca tgatacaata aaaaaatgaa 1620
 aattagcaat ctcataacat gcgacgacga tacttatggg gttgccacgt agcaagcacc 1680
 ttctctttaa ccatgagggtg tcgcaacctc agaggacaac acggacaaga ccgagaaacc 1740
 gcatactaac gcttgcaacg taaagcacia caccctaaa ctctatTTTT ttttaattttc 1800
 ttttaacctc aacacaccac gcagctatac acgtttcaat gtgctaatac gtgtcttctt 1860
 ctccgccgac caagacacac tacaaatgtc ccgatggttt ggggagacaa atcacagttt 1920
 ctactacaac aacaaatact tttagcaaaa aagcttttaa aacttatcta gtttcgtttg 1980
 atacacattt gaagaaagaa 2000

<210> 11

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 11

attaccataa tcataataic atggtgccga ctatatggct cgagtcttta tcgtttat 60
 ttatttctta aatcattgac ttataaacccg cccatgagca tttaaataatt tgtctcaaaa 120
 actcgaaaga aaatcgttat tgaaaatggt ttaataacca aatctaatacc tticcgactc 180
 atattgggtt cattataaca cttacaagt aaaagaattt tactcgactg cttcagccac 240
 aatgcggtag aagtcgcca aggaccattc ttgatcgta ttttttctt ctaagcggtt 300
 gcggtagcaa ttttcagcca tagcttccaa gtctttcgcg tctacctctc ctttaccttt 360
 tgcttcgttc cataattaag tataccaaac aaaaaaatga taattttatt aatgaagtga 420
 acatcaatga aagacgtgat ttggggggag aaagagaaag gacgaaccgg tattgagagc 480
 ttgaccata ttgtgataac ttccttcttc ttgttttttt gcataatgta acaaatttga 540
 aggataatat tgagaaataa attttgaga cctgacttgg tgacttgtga ggtgggatca 600
 gtatcttggc atttctgat cgataagcca cgtaccgga gcgtgacagt ttaacttaag 660
 gatctagaga aaaagtgtga gtctattcat ttcataattt acatatagca tataaatact 720
 attttatttt ctttggttta cagttaata gtttagact cacaatatga ctttgaaag 780
 ccaaaatgta gcagaacaat taagtttttt taatattcct ttgaaatgc aaatatgttt 840
 ttaacctata taactggcaa cattaaaagg aagagattct catgatttgc aaaatatcaa 900
 ggtggaaaag gcatgtaaatt ctttatttta tataatctt tgtttaaaac cacattggag 960
 ataattgacc aaaaaaaata caattttgtc aaaaagctta aattattgga ttgttaatga 1020
 gcataatgaa gtttgacact tggagaaaat tcacatgtca ccacatagag ataattgtatt 1080
 tctatgttca ctaacacgat tacatttaca cccattccc tcgtcgacct tgagtcactc 1140
 ccatctcctt ctttggactc ttgcgagaca cttagattta gaacaacaaa tgagtttaag 1200
 taagtactaa gcctatgaaa aaaaaaaaaag gtagaataag cttagaatc cagcaacatt 1260
 catggtatca ttgccattt atatcttaaa cgtgaaagaa ataaagagag aaaggttatg 1320
 aattcctttt gtcaatagat atcattggaa ctaagcgta tgaattcttt ttgtcaatag 1380
 gctaaaacc gtttatata ttttacaaga aacatgattt ttccataata ttgaaacttt 1440
 atatatttct taatattcta ggcatattata aattattcta tgttttgaat atttatttta 1500
 aatttttgga gaatactaga acatataact ttccaagtec tagtgatccc ggctacggca 1560

09988739 "112001

acacatccct acgagggatc aatataatga accatctcaa cgcaacactt gtcgtcgatc 1620
 aaaagtctaa aaacattgct tctcaacttt gatctctttc ctctagtctc tatcatcacc 1680
 gccacgtcac tattttcccg ccttataact aggggcaatc aactctcgcg aacagagaga 1740
 gacggagaac aagagcaatc aaatcacaca aatcctcgaa aaagtaaaat tcttgattaa 1800
 aaaaaaacgg acattttgtg ctgagacact cagctttcct tattagtctt ttgccacctc 1860
 tctgcaaagt tctcgaaccc actctgtaac caaaatcaat cataaagatt tgatcttttt 1920
 ttttcttttt tcggtgagat ttaatcctct aaggttcttg atactctcta gatctattct 1980
 tacttgggtt tgttcgaaat 2000

<210> 12

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 12

aaattaaaaa aaaaaaaaca ttgatacaat tcttaccttc agttttttaa atttccgtgtg 60
 cactatttcc ttccttgggt gtcttgcgac tgctttttga ctttgttttt ggagattttt 120
 cctttcgaac tgtcttaact gctggtttctt cctctgtagc ttcaagaaca aaatccgcat 180
 ccttttcagt tgacacagtc acttccctgt ttataggaga ggatggctca gaatcagatg 240
 agacaagcca tacagaatca gctcctccct gctaatagata catttaata atgttaacat 300
 atcttctcaa cactatacca aattaagagt tagtagtttt acaccctac gatattatat 360
 tccataaatt aaactgatcc atgcagacac aaaaccttga aataaaaaac taagacagat 420
 aagagtgtgt gcgatagatc accaactaat ttcacatcat ctcatagaag tccaaagctg 480
 tcctagagtt agtttataac tagtatacca ctatcttgac aatacaatcc atttatcagg 540
 cagatacatt ctgacaagaa acacttgaat cacaatatcg acccactaaa gcaagtagag 600
 gcaacagaaa cactaaggag tacgatggag acagtgacca aaaggttctt acttgagcat 660
 ccttatgtct gctagagagt ttttcacagt caacgttggt tccattctcc ttcctgcac 720
 acgaatctgc ccgagtcaaa tacatgcttt taagagctca acagttgaac aatactcccc 780

taaattcata aattgatatt ctctccctcg ccctccaaga aggaaatgac ccataaatgt 840
 ttgttcctct aatctcaaag caaaacaaca cagaaaatct tccatacctt caaggttgag 900
 actagcatct gctttcttct ttctagaaaa cacctgctcg atactcactt gcttcgtcac 960
 aaccttcgtt tcggaattct tcctagtcag taactccaca gattctgtct caagaaccac 1020
 aatgtcgtca ccgtcatcat caggcaaagg aagagacgaa atgacttcag attccctata 1080
 aggactatca tcacttgaag atgatagcga caacaatgaa gtagtcatgg gtgcctgcgt 1140
 aacaaaacca tccactttca attgttaatt tctatatatt tcaaacaaat atataaaata 1200
 gaaacagaaa tcagattgaa tctggaacct cgtaagagcg aagccaatct ggagatccct 1260
 ctctagagct gctgctcata atttcacttc ttcagagctc aaaacaacaa tctaagcttc 1320
 ttcccagctt caatatccac tcaattacaa caaaatcagg tcgtacattc aggatttact 1380
 tcgcaatatc aaaaccctaa aaagagatct taaaagctat aaattcgatt gaaaatcaca 1440
 tgaaatcgaa gctcacatga agaagaagaa gacaaaattg agtgattgac gaatctaattg 1500
 aggttataaac ccggcgagga gacgtggaaa aggcattctga attgactgag gcctgaggga 1560
 agaagcaatg atttcgccgg cggagagatt gaagtgtgtg aaagacgcgg gaagaagatt 1620
 ggggcataaa ctgcttgctc gagtttccaa gtgtttggtc acaagagcaa tactatcccc 1680
 aacgtcgacg taaaattttac taaaagccca atatgtttta atagaaaaat taacataaag 1740
 cccaaattcg atgtaatggg ctttcatctt tcaggaaaaa ttaacattag cccagatatg 1800
 ccaatagagt agagataatg acgagtgcg acataaaaaa aggcacgcaa agaataataat 1860
 attaatctct tggtaggacaa gcatgtttga ccattctcat ttctttgtgc ccaaacttat 1920
 atttggtatg ctctcctac atatagacaa gacaatggta attcgacaat tcatcaagtc 1980
 tcaaattctaa ataagtaaac 2000

<210> 13

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 13

agaaacggca gtcccacgag tatctgtata accattcatt gaccagctga atggtacttc 60
 ttgcataatc aaaactataa ttcgctggat aatgcaactc acctatttac attgaagaaa 120
 ctacagttaa caagtticca aattgtcttg gagaaacaat gctacgcata caaatiggtg 180
 aataagaagg cttataagag atatatigaa acctgaacaa gagctgcacc agccaaagca 240
 gacaccactc caatgatatt catggcctgt gaatagtaaa acttcacata tgaagaaaaa 300
 caatgctaga agaataataa agcaaatcca taaactaatt ctcttccacg aacatatata 360
 ccttaagtag cagaagtaac aaagttggag catacaaaag tacattcattc ttacagaaa 420
 cagctccact gtataaaaag aagggttaagc agactagtca atctaaagaa tcgagaagca 480
 aaagcagcaa tctaacciga aaacaagcat ccctagatgc catttacgat agagaaagag 540
 agccattgat gcatgtagga gagtcatggc aaaacaatca ttaaagagac ggagaacaaa 600
 gattgaatgt atcctcttgg ataaacatag tagacttaat gccaccatg gcacctgaaa 660
 tacgtaagga tacaagaaga gatatcatca ctgaattcac taaaatcact cccatcataa 720
 acagacaaat caaaaccaa atattgttca ttaacatcgt aaatggacaa cgcttgacaa 780
 cgtctacaaa tacttgatga aaagagataa gaaataagtc ttcatttata ccacatcagt 840
 cttcacgtag atgatcaaga cgatccccag attgacaatg tagagaacac caaaaagaat 900
 ctgcaaaatg taagagagta gaattgagac aaatgaagcg atggatggat caaatccgc 960
 agctaatcca aagataggag attcaaagag agggaattgc aagcacctga gcagggtaga 1020
 ctccccctcc agttaagttc tgcactgcag agtaaacata gaggaaacct gctggataaa 1080
 ccaatggccc tgtatgcct tccaagttcc catagtctct ctctcccccg agaaaccac 1140
 taacctgccc caattagata aatttcactt aaagactact agtttacttt gaagaaacca 1200
 cagttgacca ttgacactta cctgtgacat gtaagcatcc caatcgatct tcgtgtctgt 1260
 taaaggcaaa tgacgaaatt tggtttaaaa cctatgcaaa tgcacatttc gagggatacg 1320
 caagcaaaaa aaaaaaggag gtaaatagct ctccatgga acataggcga taataagtgc 1380
 gactaggatt gcatcagcaa gaattagcgc gaatgcgaat ggaactgcag gttttttgaa 1440
 tagatcggat cgattcgtct ccttccccag ccgacggcta cgagaagctc tcaaactcgc 1500
 cggatgatgag gcgcccgcga tgaaaacaga gcaaatcgca tcagcgtcta gccaacgccg 1560
 cgtaacagac aactacttcc atattactac tcttctaatt agcccaaatt aaatgagcct 1620
 attgggcttc ttgtcttagt cgggtgtagag cccaattggt gttttatttt ttaataatgc 1680
 aaaagtatta agcgataaat aaataagcat cgcaatcgtc ccaaaactgt gtgtatgcat 1740

cagacatgag catatagagt aagcacgtgt ccacacitit tcacaaagtt atctaaaaac 1800
 aaaaaacaat taattagcat tcgacgtgta catatcactc gccacgtgta caagagcctt 1860
 ggcccttttg cttcttcttc ttgtctatta atatcactc ctgattatac tctcttttga 1920
 ccaagctgct tcttctccat ctatccaaca tctcaaatct cagtaatctt gticcttcga 1980
 ttctgttttg gacgtttgta 2000

<210> 14

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 14

ttcggagaaa atgcagctaa cgatacagg aaaagtgatt ggtattgtgg gagtgacagt 60
 agaagatgaa gaggaagcaa tactggggaa gccaaagatcc catcacggt gagctctctc 120
 tctctctctc tegtctccgt cgtgtggatc tcgatctcga tctctctttg agccgcaaca 180
 actgatgagt tgtctcagtc tctctctctt tctctctcct cticcttttc ctctctctct 240
 ttctctctct aaaagggcta agttttttaa aaaaatgtct accaaactga taaaaagagg 300
 aagaagaaga aacactctgt actttttttt ttaacaagag aagaaatgaa aacaaagatg 360
 tgaatttaag aaaaaaata atgtgtcgac attacaaaac tgiatttaat catcatttga 420
 aaacatttaa tcatttgata aactatgtaa cattaccccc ttaatcttct ttcaccta 480
 cctttgtatc atttgttggc ctttctatit tataacattc cttaaattat tgaattaaaa 540
 ctatctaaat tctgttaatt actcacttgt aatccatttt gticactgga aatgtaaatt 600
 ttactgtctt attttgcaa acactcttga attttttttt attttttttc tggtaataa 660
 gacacaaaca tgttggatta taaactattg tgatcataac tctgttcggt aatgttttca 720
 atatcaaatt tgatagtggg tgattggatt tgtcaacatc tctttttttt ttgtttta 780
 cctttgctaa gttaagtcgg ccacatatat attgggtacg atttcatag gtctttcctc 840
 acgccagaag tgttgtttta ttttgttgat tgagttatta attattggaa gcttttcttt 900
 caagcaaagt aaaatgcgta ataatgatta gtcacatcca atggttagtc agtctattac 960

accgttaatc aagctctggt catataatit ttttattttt ggaactaaca cttattagtt 1020
 taggtttcca tcacctatit aattcgtaat tcttatacat gcatataata gagatacata 1080
 tatacaaatt tatgatcatt ttgacacaac atgtgatctc attcattagt atgcattatg 1140
 cgaaaacctc gacgcgcaaa agacacgtaa tagctaataa tgttactcat ttataatgat 1200
 tgaagcaaga cgaaaacaac aacatatata tcaaattgta aactagatat ttcttaaaag 1260
 tgaaaaaaaaa caaagaaata taaaggacaa ttttgagtca gtctcttaat attaaaacat 1320
 atatacataa ataagcacia acgtggttac ctgtcttcat gcaatgtgga ctttagttta 1380
 tctaatacaa atcaaaataa aagggtgaat agttctcgtc atttttcaa ttttaaaaat 1440
 cagaaccaag tgatttttgt ttgagtatig atccattgtt taaacaatit aacacagtat 1500
 atacgtctct tgagatgttg acatgatgat aaaatacgag atcgtctctt ggttttcgaa 1560
 ttttgaactt taatagtttt ttttttagg gaaacttta tagttgttta tcataagatt 1620
 agtcaccta tggttacgtt gcagtaccga accaattttt tacccttttt tctaaatgtg 1680
 gtcgtggcat aatttccaaa agagatccaa aacccggttt gctcaactga taagccggtc 1740
 ggttctgggt tgaaaaacaa gaaataatct gaaagtgtga aacagcaacg tgtctcggtg 1800
 tttcatgagc caccigccac ctcatcagc tcggtcattt tgtcgtttca cggttcacgc 1860
 tctagacacg tgctctgtcc ccacatgac tttcgctgcc gactcgcttc gctttgcaaa 1920
 ctcaaacatg tgtgtatatg taagtttcat cctaataagc atctcttacc acattaatit 1980
 aaaacaaaga aaacatcaaa 2000

<210> 15

<211> 2000

<212> DNA

<213> *Arabidopsis thaliana*

<400> 15

atgcccgtta cttgatccca cagggttata attcactgaa ggattttttc ccaacatga 60
 aaatgagacc aaatccacaa tgctcgaatg tagcttgtct agagcggcag gtaacctgat 120
 taaatgcaac caaaaacta tctcagcttg tctttgtttt gcgccttttg tttccatcca 180

acaaaaaaca tttttcagac acaaaatcat aaaatctttg cctttagtag atcaaagttc 1980
 ttacattaa tcgttagaag 2000

<210> 16

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 16

ttagctgggg caggtcggct tgatttcatt gaggatctgc ttgagcatca gaagacactt 60
 ccacaaggta ggcgtgaggg tttcattggt aggattataa tgttgtatgg caaggctgga 120
 atgacgaagc aagcacttga tactttcttc aatatggatt tatacggttg caaaagatct 180
 gttaaagtcct tcaatgccgc tcttcaagtc ttatctttca atcctgatct ccacaccatc 240
 tgggagttcc ttcacgacgc cccatcgaag tatggcatig atattgatgc ggtttctttt 300
 aacattgcca ttaaattcttt ctgtgagctg ggtattcttg acggggccta tatggcaatg 360
 aggagatgg agaaatcagg gttaacacca gatgtagtta catatactac acttataatc 420
 gcgttataca agcacgagag gtgtgtgatt ggaaatggat tgtggaacct tatggtcctc 480
 aagggtgta agccgaacct caccactttt aatgttagga ttcagttttt agtgaatagg 540
 agacgagctt gggatgcaa tgatctgttg ctgttgatgc ctaaactcca ggtggaaccg 600
 gacagcataa catataacat ggttatcaaa gggtttttcc ttgcgaggtt ccttgacatg 660
 gcggaaagag ttatatacag gatgcatggt aaggggtaca aaccaattt gaagatatac 720
 cagacgatga ttactatatt gtgcaaggca ggaaattttg atttggctta tacaatgtgc 780
 aaggattgta tgagaaagaa gtggtaccca aacttggaca cagttgagat gttgctcaaa 840
 gggcttgtga aaaaggggca gcttgatcag gctaagtcga tcatggagtt agttcacaga 900
 agagtacctc ctttcaggtc aaaacagttg ctctccctta agtccatttt gtaatgttta 960
 catgaaatgg aacaaatttg ctacatgtac acgacaatgc ggccaaaaga attctttctt 1020
 tctttctcct gagtttatatt tgtatagctg tgggtggaact ggaaatggga tgtagcctca 1080
 tattaggagg cacacttate ttccaatcag attcaactat ttgttgttca atgtgaataa 1140

agcittaggat gattitggaaa cttcaatgga gggataccca gtaagtcatg gatgcctcta 1200
 caatcttaag ttgtgatagc acagaactag tttacctttt gtaatgctac ttacaaaaca 1260
 tgttgttgat ttcagctgga gagcaaatg gcatacaca agcagggacc atgtgctgaa 1320
 gaaaccaaaa ggatcttcgt ctgacgatgc aaaagctctt gagcacctgg aaaaatgagt 1380
 tatgttgtaa gcttcactta gccaaattaa aagcactaaa catataacaa aggatatcaa 1440
 cgttgatagc tttttcttga tatagcacga atgtaaacaa cagagaatag aacagagaca 1500
 acattaccag caatgaatat ttttattatt atgtcgaata aatacatttt cccacaagtg 1560
 acagagcaaa caaaattcac atatttttgt ctattacact ttggtgtcag actgacttgt 1620
 tacgtagatt tatggcggtg gattataaca ttgtaacitt aaatatcttt taacgtaaga 1680
 aacaaaactc caaaatttgt gtttattttt aaaaataaaa atttgagggg gcatgtatgt 1740
 ttgttttagtt gattcacgtg ttcttttgtt ctgaaaattc tgaatttgat gattttgaaa 1800
 aaggaaaaaa agatacgagg tatcctcaat tccaaaagga tgaatgatac aactcatata 1860
 tacaagatta tagtaaaaag aagggatgca tataaagaaa catagacatc atcgccatcc 1920
 atcctcagat cagttccgta gtttactgga tcacgacaca cacacatata cacgtgtaca 1980
 tataagccat tcttatcaaa 2000

<210> 17

<211> 2000

<212> DNA

<213> Arabidopsis thaliana

<400> 17

cacatttgac ggcgaatcaa gcgattctag aagcgacgga gaagtcgaac aagattcaca 60
 tcgtcgattt tggaatcggt caaggtatac aatggcctgc tcttcttcaa gctctagcta 120
 ctctgacttc tggtaaacc accaaatcc gggctctcggg tatacccgct ccatctctcg 180
 gtgaatctcc ggaaccgtcg ttaatcgcca ccggaaccg cctccgtgat ttcgccaagg 240
 ttctggatct gaatttcgat ttcattccaa ttctcactcc catacattta cttaacgggt 300
 caagtttccg ggtcgaccgg gatgaagtac tggccgtgaa ttcatgctc cagctctaca 360

aattactcga cgagacgccg acgatagttg acaccgcact acggctcgcc aaatcgttga 420
acccgaggggt cgtcactctc ggagaatacag aagttagcgtt aaaccgggtc ggtttcgcta 480
accgggtaaa gaacgcgctt caattctatt ccgcggtttt cgaatccctt gaaccgaact 540
tggggcgtga ttccggaggag agagttagag ttgagcgaga gttgttcggc cggagaatct 600
cgggtttgat tggaccggag aaaaccggaa ttcatagaga aagaatggaa gagaaagagc 660
aatggcgggt attaatggag aatgccggtt ttgaatcggt taagctgagt aattacgcag 720
tgagccaagc gaagattcta ttgtggaatt acaattacag caatttgtat tcaattgttg 780
aatctaagcc tggcttcac cttttggcct ggaacgattt acctctctc actctttctt 840
cctggcgata accaaacca accgatccgg tattcttagt ttgttttgt tttcaatgtt 900
atttttgggt agacaaatat tcaattgita atatactccg tggtcagagt gttttgtttt 960
tcttttagtt cgaacgttga attaatcag gggtagggtt tgaattctct gaaccttatg 1020
tgttttttgg taacatcatt tggatttgtg aactagggtt aaaaactggc cttagtcttg 1080
ttgttttctc attagataat ttaaactggc ttgcttcttt atttttgggt ggataaagtg 1140
accggttctg gtcactctgt tgagatgtaa ttactatctt ataaaattag gaagttgaaa 1200
gccaaatata ttgttaacta ctcttttatt tgtaattttg ctcaaaaaag tgatgaaatg 1260
tagttttgat atatgaatat ctaccattat acataagtat atctgaacat ggtacaactt 1320
atgaaagcta aatgtcaata ctgcaaaga tataacaaat acaagttaca tgaataagag 1380
atgtgtgttg aatttataag tgtcatcttc ttttactttt aaaacaaact tcatcttctt 1440
ttgtttctta tgtgtcaaag ttgccacagt tgctctatct gagtctttca gtgtcagtct 1500
cagtcactgt actgatttta cttttttttg ttgagtgtgc caatgatgac atcactccca 1560
cgtcctccat cgtcttctt ttaacgggtc cgtggctccc accctctttt ctgatgtct 1620
ttaccgactt gttctagccc aacttacttg ggccatttag attttttggg ggcccaagtt 1680
gctaaaagag gatttatcat agaaatctga acccggtgca gcgctcaaca catgtcacag 1740
tcctgacaaa cacgtattca aatccttggt aagtcctgcc acctgtcacc agagcaccac 1800
gaggcaaact ctgatcagga caccgtcgta ctattatgtc ggaagacagg aaagcttaat 1860
taagcttaaa cctgacgtat ttaacttcgt taactctacc ttactaaagg gttttaattt 1920
aaaacttacc atctctctgt aagaataaaa actacttact ctataaattt aagcttcaag 1980
aaacctccaa aagcagagaa 2000

<210> 18

<211> 2000

<212> DNA

<213> *Arabidopsis thaliana*

<400> 18

gggggttcca caatgcattg attgagtttg tgctgatgca gttacaactt gcttccgtct 60
ttttcacgtt tcagctcggg acaaaaacac attactacgg aaggacattg tticatggag 120
gcgagagta tagaggaact ggtcgagggt ttgttggtctt ccacgcgaaa ttgctgaga 180
actatagggt ctattcccgt agtcactttg tgaaggcat tgaacttatg attcttctac 240
tggtatatca gatctttggt caatcatata ggggtgtggt tacttatatt ctgatcactg 300
tttcgatatg gttcatgggt gtgacatggc tctttgctcc tttccttttc aatccgtctg 360
gttttgagt gcaaaagatt gttgatgact ggacagactg gaacaaatgg atttataacc 420
gaggaggaat tgggtgtcct cctgagaaga gttgggaatc ttggtgggag aaagagttag 480
aacatcttag acattcaggg gttcgttgta tcaccttga gatctttttg gccttgcgct 540
tcttcatctt tcaatatgga cttgtgtatc atctcagtac cticaaagga aaaaatcaga 600
gcctttgggt aagctaacct tataactact tccctgtgaa tggtgaaact cttgattatt 660
gaacgataat gactcgtttt tcaggtttat ggagcgcat ggtttgtgat cttattcatt 720
ctactgattg tgaaggtagt aatctttaag cacattcaca tticaatttc ttgccaaatc 780
ttaacattgt gttgctttct tctatgtaac gatcattgca gggtttgggc gttggaaggc 840
gaagattcag cacgaatttc cagcttctat tcagaatcat aaagggtctt gtgttcctca 900
catttgtggc aattctcata actttcctcg cacttcctct gataacaatc aaagacttat 960
tcatctgcat gcttgccttc atgccaactg gatggggaat gcttctcgta agtctttctc 1020
ctccatcaaa ctctctatt tgtatctaag ataccagttt tgtctggttt ttgtgacagt 1080
tgctttgttt tgtcctccac gtcagattgc acaagcgtgt aagcctctga tccaacagct 1140
agggatatgg tcatcagtta ggacgctagc tcgaggctac gagatcgtga tgggcttgct 1200
tctgttcaca ccagttgcgt ttttggcctg gtttcctttt gtgtctgagt tccagacaag 1260
aatgctcttt aaccaagcct ttagtagagg tctacaaatc tctcgtatc ttgggtgtca 1320

aagaaaagac cggctcttcaa aaaacaagga gtgacatgta cacatgtaaa tggcgtatgt 1380
 gtagatttaa tggttatctg ttattgtttc ctccccaagt aatctatagt tagaaagttc 1440
 ctgtaacttt catagatata tgttaattat tttccatttc cataagttcg cgtccattat 1500
 aatagaaaagt gcatgagacg tatctttttc atatggaaga cgaaaacatt ggttctccat 1560
 tctaaaagtc aaaaagaaaa tgtatatcac ttgaactttt ccacataggt catgataaag 1620
 acaggactaa tcaatcattc attgttgata atggctctcaa ttacctgttg ctagtatttt 1680
 ctacatttgt atagtgaat actgtttttt tttcctcttc caaataaaaa ctacagtact 1740
 aaaagaaagt tggtaatcat aaaagttata aaactcaaat aaaagcaatt actctgtttc 1800
 tttttcactc ttattttata tgactgaaat gaaattgict atatgttgtt ttgttttgta 1860
 tgttcattga taigtaaaca tcaaactctgc aaaaaacaac cgcaagtttg gatttatacg 1920
 atgaagcgtt tatctagtga gcgtcatcgc agacgtcaca agttatgttg tacaattttg 1980
 cgtatgtttg atgaatacgc 2000

<210> 19

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 19

cgccagggtt ttcccagttca cga

23

<210> 20

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: synthetic DNA

<400> 20

agcggataac aatttcacac agga

24

112001 6E4E8660